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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY-DOCKET NO.	CONFIRMATION NO.
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10/660,545

09/12/2003

Arto Palin

4208-4145 (Nokia  
NC28903)

6422

27123 7590 01/03/2007  
MORGAN & FINNEGAN, L.L.P.  
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EXAMINER

AJAYI, JOEL

ART UNIT

PAPER NUMBER

2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/03/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/660,545

Applicant(s)

PALIN ET AL.

Examiner

Joel Ajayi

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :6/1/05, 6/16/05, 9/19/05, 10/31/05.

## DETAILED ACTION

### *Information Disclosure Statement*

The information disclosure statement submitted on 6/1/05, 6/16/05, 9/19/05, 10/31/05 has been considered by the Examiner and made of record in the application file.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1, 3-6, 8, 15-17, and 19-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Davies (U.S. Patent Application Number: 2001/0055356)** in view of **Tomlinson, JR. et al. (U.S. Patent Application Number: 2003/0100288)**.

Consider **claim 1**; Davies clearly discloses a method of controlling a multicast transmission (paragraph 1, line 1 - paragraph 2, line 12), comprising: (a) transmitting a data packet to a plurality of slave devices (paragraph 1, lines 1-5); (b) detecting the reception of any acknowledgement transmissions, wherein each acknowledgement transmission indicates reception of the data packet by a respective one of the plurality of slave devices (receiving device) (paragraph 1, line 1 - paragraph 2, line 12); and (c) retransmitting the data packet to at least one of the plurality of slave devices when an acknowledgment is not detected for each of the plurality of slave devices (paragraph 1, line 1 - paragraph 2, line 12).

Except:

An ultra wideband (UWB) wireless network.

In the same field of endeavor Tomlinson clearly discloses an ultra wideband (UWB) wireless network (paragraph 11, lines 29-32; paragraph 13, lines 9-11; paragraph 15, lines 6-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Tomlinson into the method of Davies in order to provide a communications infrastructure to a plurality of fixed RF modems within a building without blindspots that include areas within the building where RF communications signals do not penetrate adequately from a single transmitter location.

Consider **claim 17**; Davies clearly discloses a system for controlling a multicast transmission (paragraph 1, line 1 - paragraph 2, line 12), comprising: means for transmitting a

data packet to a plurality of slave devices (paragraph 1, lines 1-5); means for detecting the reception of any acknowledgement transmissions, wherein each acknowledgement transmission indicates reception of the data packet by a respective one of the plurality of slave devices (receiving device) (paragraph 1, line 1 - paragraph 2, line 12); and means for retransmitting the data packet to the one or more slave devices when an acknowledgment is not detected for each of the one or more slave devices (paragraph 1, line 1 - paragraph 2, line 12).

Except:

An ultra wideband (UWB) wireless network.

In the same field of endeavor Tomlinson clearly discloses an ultra wideband (UWB) wireless network (paragraph 11, lines 29-32; paragraph 13, lines 9-11; paragraph 15, lines 6-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Tomlinson into the method of Davies in order to provide a communications infrastructure to a plurality of fixed RF modems within a building without blindspots that include areas within the building where RF communications signals do not penetrate adequately from a single transmitter location.

Consider **claim 21**; Davies clearly discloses a computer-readable medium encoded with processing instructions for implementing a method of controlling multicast transmission, performed by a wireless communications device (paragraph 45, lines 1-5), the method comprising: (a) transmitting a data packet to a plurality of slave devices (paragraph 1, lines 1-5); (b) detecting the reception of any acknowledgement transmissions, wherein each acknowledgement transmission indicates reception of the data packet by a respective one of the plurality of slave devices (receiving device) (paragraph 1, line 1 - paragraph 2, line 12); and (c)

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retransmitting the data packet to at least one of the plurality of slave devices when an acknowledgment is not detected for each of the plurality of slave devices (paragraph 1, line 1 - paragraph 2, line 12).

Except:

An ultra wideband (UWB) wireless network.

In the same field of endeavor Tomlinson clearly discloses an ultra wideband (UWB) wireless network (paragraph 11, lines 29-32; paragraph 13, lines 9-11; paragraph 15, lines 6-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Tomlinson into the method of Davies in order to provide a communications infrastructure to a plurality of fixed RF modems within a building without blindspots that include areas within the building where RF communications signals do not penetrate adequately from a single transmitter location.

Consider **claim 3**; the combination above clearly discloses receiving said any acknowledgement transmissions from the UWB wireless network (Tomlinson, paragraph 13, lines 9-11; paragraph 15, lines 6-10).

Consider **claims 4, 5, 15, 16, 19, 20, 22, and 23**; the combination above clearly discloses receiving said any acknowledgement transmissions from a transmission media different than the UWB wireless network (Tomlinson, paragraph 13, lines 9-11; paragraph 15, lines 11-14).

Consider **claims 6 and 8**; the combination above clearly discloses correlating received signals with a predetermined acknowledgement sequence during a time slot allocated to the slave devices for acknowledgement transmission (Davies, paragraph 11, lines 1-25).

**Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schmidl et al. (U.S. Patent Application Number: 2002/0003792)** in view of **Tomlinson, JR. et al. (U.S. Patent Application Number: 2003/0100288)**.

Consider **claim 13**; Schmidl clearly discloses a wireless communications device (wireless communication transceiver) (paragraph 77, lines 1-3), comprising: a transmission buffer configured to store a packet for transmission to a plurality of slave devices (paragraph 63, lines 1-3; paragraph 68, lines 7-16); a retransmission buffer configured to store a retransmission packet, and a retransmission controller configured to receive one or more acknowledgment transmissions from the plurality of slave devices (paragraph 63, lines 1-3; paragraph 68, lines 7-16; paragraph 69, lines 6-15); wherein the retransmission controller is further configured to cause the retransmission buffer to send the retransmission packet to the plurality of slave devices when an acknowledgment is not detected for each of the plurality of slave devices (paragraph 63, lines 1-3; paragraph 68, lines 7-16; paragraph 69, lines 6-15).

Except:

An ultra wideband (UWB) wireless network.

In the same field of endeavor Tomlinson clearly discloses an ultra wideband (UWB) wireless network (paragraph 11, lines 29-32; paragraph 13, lines 9-11; paragraph 15, lines 6-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Tomlinson into the method of Schmidl in order to provide a communications infrastructure to a plurality of fixed RF modems within a building without blindspots that include areas within the building where RF communications signals do not penetrate adequately from a single transmitter location.



**Claims 2, 7, 9-12, 14, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Davies (U.S. Patent Application Number: 2001/0055356)** in view of **Tomlinson, JR. et al. (U.S. Patent Application Number: 2003/0100288)**, and further in view of **Batra (U.S. Patent Application Number: 2003/0147453)**.

Consider **claims 2, 7, 9-12, 14, and 18**; Davies and Tomlinson clearly discloses the claimed invention except: (d) counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of slave devices; and (e) foregoing retransmission of the data packet when said number of consecutive times exceeds a predetermined threshold and when step (b) detects an acknowledgement transmission from the each of the plurality slave devices except for said particular slave device.

In the same field of endeavor Batra clearly discloses (d) counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of slave devices (paragraph 24, lines 1-8; paragraph 29, lines 13-23); and (e) foregoing retransmission of the data packet when said number of consecutive times exceeds a predetermined threshold (paragraph 24, lines 1-8; paragraph 25, lines 8-15; paragraph 29, lines 13-23) and when step (b) detects an acknowledgement transmission from the each of the plurality slave devices except for said particular slave device (paragraph 24, lines 1-8; paragraph 25, lines 8-15; paragraph 29, lines 13-23).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Batra into the method of Davies and

Tomlinson in order to provide an adaptive hopping scheme that takes into account current channel conditions when creating the sequence of hop frequencies.

***Conclusion***

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joel Ajayi whose telephone number is (571) 270-1091. The Examiner can normally be reached on Monday-Friday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

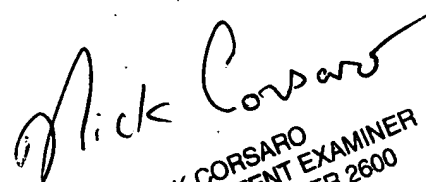
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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

*Joel Ajayi*

December 08, 2006

  
NICK CORSARO  
SUPERVISORY PATENT EXAMINER  
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